REMARKS/ARGUMENTS

The Pending Claims

Claims 24, 29, and 30 are pending and directed to methods of preparing a creatine amidinohydrolase.

Amendments to the Claims

The claims have been amended to point out more particularly and claim more distinctly the invention. Specifically, claim 30 has been amended to recite "creatine" in place of "substrate" as supported by the specification at column 9, lines 14-39. No new matter has been added by way of this amendment. The precise changes to claim 30 are recited in Exhibit A.

Summary of the Office Action

The Office has objected to the specification because the Substitute Sequence Listing that corrects a typographical error in SEQ ID NO: 2 allegedly introduces new matter. The Office has rejected claim 30 under 35 U.S.C. § 112, first paragraph, as allegedly lacking written description. Reconsideration is hereby requested.

Discussion of Objection to the Specification

The Office has objected to the specification because the Substitute Sequence Listing that was submitted with the previous Response to Office Action dated April 18, 2005 allegedly introduced new matter. The Office contends that applicants did not provide evidence that that nucleotide sequence contained an error other than that of attorney argument.

Applicants herewith submit a Rule 132 Declaration of Atsushi Sogabe, who is a co-inventor of the subject matter of the application. The Rule 132 declaration identifies the typographical error in the nucleotide sequence of SEQ ID NO: 2. Specifically, nucleotide residue 435 of SEQ ID NO: 2 should be guanine (G), and not cysteine (C). Thus, the codon at nucleotide residues 433-435 should be GAG, and not GAC. The deduced amino acid sequence of SEQ ID NO: 1 (which also appears in SEQ ID NO: 2) correctly sets forth the amino acid corresponding to the codon at nucleotide residues 433-435 as glutamine (Glu).

Moreover, the Rule 132 declaration confirms that the correct nucleotide sequence that encodes SEQ ID NO: 1 could be readily sequenced by one of ordinary skill in the art as of 1996 (the earliest priority date of the application) from the source material of the amidinohydrolase gene derived from *Alcaligenes faecalis* TE3581, which has deposit accession number FERM P-14237 (see, e.g., column 4, lines 7-10, of the application).

Thus, one of ordinary skill in the art, reading the specification of the present application as of its earliest priority date, would have appreciated the typographical error and understood the proper correction.

Since the Substitute Sequence Listing merely corrects a typographical error, the correct information for which could be readily obtained by an ordinarily skilled artisan based on the teachings in the specification and what was known in the art at the relevant time, no new matter was added by way of the Substitute Sequence Listing. Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

Discussion of the Written Description Rejection

The Office has rejected claim 30 for allegedly lacking written description. Specifically, the Office contends that the specification only has support for one substrate (creatine) and one set of concentrations (a given concentration and 1/10 thereof). Applicants traverse the rejection for the following reasons.

Claim 30, as amended, replaces the term "substrate" with "creatine" as suggested by the Office. Regarding the sets of concentrations, the Km value is determined by calculation based on an appropriate method, such as a Lineweaver-Burk plot, using the experimental data obtained by tests using several different substrate (i.e., creatine) concentrations. In the method described in Example 3 of the application, two concentrations (1 and 1/10) were employed for the convenience of screening and ease of calculation. One of ordinary skill in the art would readily understand that the determination of the Km value can be made using substrates at any two different concentration levels and that Applicants merely utilized a given concentration and 1/10 thereof as illustrative of the general technique.

For example, the enclosed reference (Segel et al., Biochemical Calculations: How to Solve Mathematical Problems in General Biochemistry, 2nd Ed., John Wiley & Sons, Inc., New York, 1979; English translation) describes the reaction mechanism for an enzyme-catalyzed conversion of a substrate (such as creatine) into a product. As indicated by the boxed sections of the translated document on pages 1 and 2, the same Km value will be obtained regardless of the concentration levels of substrate in the test (as long as the enzyme follows the formula of Herni-Michaelis-Menten, which assumes rapid equilibrium). Accordingly, one of ordinary skill in the art would appreciate that the method of the invention using a substrate (e.g., creatine) at any two concentration levels for the determination of Km is appropriate and was in the possession of the Applicants as evidenced by the information set forth in the present application.

For these reasons, the Applicants believe that the subject matter of the claims is adequately supported by the specification, such that the written description rejection should be withdrawn.

Conclusion

If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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